

REMARKS

Reconsideration of this application in view of the above amendments and following remarks is respectfully requested.

Claims 1-17, 32, 34 and 36-38 are now pending. Claims 18-31, 33 and 35 have been withdrawn from prosecution. Claims 2-7, 11-13, 32, 34, 36 and 38 have been amended. Claim 39 has been cancelled.

Prior Restriction Requirement

In Response to a prior Restriction Requirement, Applicants elected to continue prosecution of the Group I subject matter – that is, claims 1-17, 32, 34 and 36-39 directed to a receptor chip.

With regard to the non-elected method claims (such as claims 33 and 35), Applicants respectfully request rejoinder of the same since such claims depend from or otherwise include all the limitations of the patentable product from which they depend (*i.e.*, in the case of claims 33 and 35, the receptor chip of claims 16 and 34, respectively). As previously noted by the Examiner, such rejoinder is a matter of right should the corresponding product claim(s) be found allowable.

In addition, Applicants have amended claim 32 by addition of the steps of withdrawn claims 18 and 25. Similarly, Applicants have amended claims 34, 36 and 38 such that these claims no longer depend from a withdrawn claim.

Rejection Under 35 U.S.C. §112, Second Paragraph

Claims 2-14, 32, 34 and 36-39 stand rejected under the second paragraph of §112 as indefinite for not further limiting the scope of the claim from which they depend. Applicants traverse this rejection for the following reasons.

For purpose of clarity only, Applicants have amended claims 2-7 and 11-13 to more specifically recite the further limitation associated with each of these dependent claims. As for claims 8-10 and 14, Applicants submit that no amendment of these claim is warranted.

As noted above, claim 32 has been amended such that it no longer depends from withdrawn claims 18 and 25 – that is, it has been amended to recite as a product-by-process claim. Similarly, claim 34 has also been amended to no longer depend from withdrawn claims 23 and 30, and to further recite the nature of the receptor (*i.e.*, LOX-1).

Finally, as a result of the amendment to claim 38, claim 39 has been cancelled as being duplicative.

Accordingly, Applicants respectfully request that this ground of rejection be withdrawn as applied to claims 2-14, 32, 34 and 36-38.

In addition, claim 17 also stands rejected under the second paragraph of §112 as being “unclear how the adaptation affects the product structure of claim 1.” Applicants respectfully disagree. Adaptation of the chip for detection by the techniques recited is clearly recognized by one skilled in this field as adding further limitation to the claim. For example, in the case of surface plasmon resonance detection, an appropriate dielectric and/or metal layer may be utilized to adapt the chip for such detection. Appropriate limitations are also associated with adaptation of the chip for detection by quartz-crystal microbalance and by mass spectroscopy, which additional features are clearly recognized and appreciated by one skilled in these different fields of detection.

Accordingly, Applicants also submit that claim 17 satisfies the second paragraph requirements of §112, and request that this ground of rejection be withdrawn.

Rejection Based on 35 U.S.C. §102(e)

All pending claims (*i.e.*, claims 1-17, 32, 34 and 36-39) stand rejected under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 6,500,938 to Au-Young *et al.* (“the ‘938 patent”). Applicants respectfully disagree with this ground of rejection.

The ‘938 patent is directed to a composition comprising a plurality of polynucleotide probes, wherein such probes comprise at least a portion of a gene encoding for a signaling pathway polypeptide (col. 1, lines 49-53). In contrast, the pending claims recite a recombinantly expressed biotinylated receptor protein immobilized on a receptor chip via a factor capable of specifically binding to biotin. There is absolutely no teaching within the ‘938

patent directed to immobilization of receptor proteins, and thus the pending claims are clearly novel over the '938 patent.

Furthermore, the '938 patent does not suggest or motivate one to immobilize receptor proteins. Rather, the teachings of the '938 patent are limited to immobilized polynucleotides for use in hybridization reactions (*e.g.*, to monitor the expression of a plurality of target polynucleotides). Clearly, this is both an entirely unrelated use and an entirely different composition than that described by the present invention, which is directed to immobilized polypeptides for use in protein binding reactions (*e.g.*, to detect specific polypeptide ligands). Therefore, the '938 patent provides no teachings related to the presently claimed invention and would not motivate the skilled artisan to achieve the presently claimed invention. Furthermore, the skilled artisan would appreciate that the identification and production of immobilized fusion proteins capable of binding a target ligand is technically distinct from the production of immobilized polynucleotides capable of hybridizing to a corresponding target polynucleotide. Thus, the '938 patent provides absolutely no basis for the skilled artisan to believe that its teachings with regard to polynucleotides could be adapted to achieve the presently claimed invention with any reasonable expectation of success.

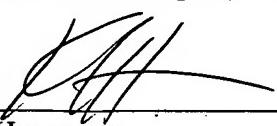
Accordingly, Applicants submit that the pending claims are patentable over the '938 patent, and request that this ground of rejection be withdrawn.

Conclusion

A good faith effort has been made to place this application in condition for allowance. However, should any further issue require attention prior to allowance, the Examiner is requested to contact the undersigned at (206) 622-4900 to resolve the same.

Respectfully submitted,

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